

In the Claims:

Please amend claims 1, 5, 9, 10, 11, 14, 15, 16, 19 and 20 as follows:

1. (currently amended) Apparatus for customizing and monitoring multiple interfaces, ~~and implementing enhanced fault tolerance and failure isolation features~~

said apparatus including an interface controller, said interface controller comprising:

~~a controller, said controller including~~

a first interface coupled to a pair of master sources;

a second interface coupled to a plurality of target interfaces;

a third interface coupled to a second controller for coupling a plurality of predefined ~~controller~~ control signals;

a first multiplexer coupled between said pair of master sources and said second interface to said plurality of target interfaces;

a pair of second multiplexers coupled between said second interface to said plurality of target interfaces and a respective one of said pair of master sources;

a pair of redundant selector functions for coupling a select signal to said first multiplexer for selecting one of said plurality of target interfaces; and

a pair of redundant ATTENTION monitor functions for monitoring ATTENTION signals for each of said plurality of target interfaces.

2. (original) Apparatus as recited in claim 1 wherein the multiple interfaces include multiple IEEE 1149.1 standard joint test access group (JTAG) interfaces.

3. (original) Apparatus as recited in claim 1 wherein said pair of master sources includes a pair of service processors.

4. (original) Apparatus as recited in claim 1 wherein said plurality of target interfaces include a plurality of joint test access group (JTAG) interfaces.

5. (currently amended) Apparatus as recited in claim 1 wherein said plurality of predefined control signals include a master control signal for controlling ~~defining~~ a master status for one of each of said ~~pairs~~ pair of redundant selector functions and said pair of redundant ATTENTION monitor functions.

6. (currently amended) Apparatus as recited in claim 1 wherein said plurality of predefined control signals include a reset control signal for resetting said a second controller.

7. (currently amended) Apparatus as recited in claim 1 wherein said plurality of predefined control signals include an isolate control signal for isolating said a second controller from said master sources.

8. (currently amended) Apparatus as recited in claim 1 wherein said plurality of predefined control signals include a dual configuration control signal for providing interconnecting signals between ~~a pair of controllers~~ said interface controller and said second controller or providing internal interconnecting signals between said pair of redundant selector functions.

9. (currently amended) Apparatus as recited in claim 1 wherein said plurality of predefined control signals include an external master configuration control signal for

~~controlling defining~~ a master status for one of said redundant selector functions or for one of said interface controller and said second controller ~~of a pair of controllers~~.

10. (currently amended) Apparatus as recited in claim 1 wherein said plurality of predefined control signals include a priority configuration control signal for controlling resolving a master status for one of each ~~between~~ said redundant selector and ATTENTION monitoring functions or for one of said interface controller and said second controller ~~between a pair of controllers~~.

11. (currently amended) Apparatus as recited in claim 1 wherein said master sources include a pair of service processors; and wherein said first interface coupled to said pair of master sources include a plurality of select signals for each service processor.

12. (original) Apparatus as recited in claim 11 wherein said plurality of predefined control signals include a configuration control signal for redirecting said plurality of select signals for each service processor to a selected set of said target interfaces.

13. (original) Apparatus as recited in claim 1 includes a pair of redundant ATTENTION mask functions respectively coupled to said pair of second multiplexers for individual target interface masking.

14. (currently amended) Apparatus as recited in claim 1 includes a pair of redundant interface registers for encoding values for selecting one of said plurality of said target interfaces ~~interface~~, each one of said pair of redundant interface registers respectively coupled to a respective one of said redundant selector functions.

15. (currently amended) A method for customizing and monitoring multiple interfaces with a controller ~~and implementing enhanced fault tolerance and failure-isolation features~~, said method comprising the steps:

- connecting a first interface to a pair of master sources;
- connecting a second interface to a plurality of target interfaces;
- connecting a third interface to a second controller for coupling a plurality of predefined control signals;
- providing a first multiplexer coupled between said pair of master sources and said second interface to said plurality of target interfaces;
- providing a pair of second multiplexers coupled between said second interface to said plurality of target interfaces and a respective one of said pair of master sources;
- utilizing a pair of redundant selector functions for coupling a select signal to said first multiplexer for selecting one of said plurality of target interfaces; and
- utilizing a pair of redundant ATTENTION monitor functions for monitoring ATTENTION signals for each of said plurality of target interfaces.

16. (currently amended) A method as recited in claim 15 wherein the step of connecting said third interface to said second controller for coupling said plurality of predefined control signals includes the step of providing a master control signal for controlling defining a master status for one of each of said pairs of redundant selector functions and ATTENTION monitor functions.

17. (original) A method as recited in claim 15 wherein the step of connecting said third interface to said plurality of predefined control signals includes the

step of providing an isolate control signal for providing isolation for hot plugging support on said first interface and said second interface.

18. (original) A method as recited in claim 15 wherein the step of connecting said third interface to said plurality of predefined control signals includes the step of providing a configuration control signal for redirecting a plurality of select signals for each master source to a selected set of said target interfaces.

19. (currently amended) A method as recited in claim 15 wherein the step of connecting said third interface to said plurality of predefined control signals includes the step of providing a priority configuration control signal for controlling ~~resolving~~ a master status for one of each ~~between~~ said redundant selector and ATTENTION monitoring functions or for one of said interface controller and said second controller ~~between a pair of controllers~~.

20. (currently amended) A method as recited in claim 15 includes the step of providing a respective interface register respectively coupled to one of said pair of redundant selector functions for encoding values for selecting one of said plurality of target interfaces ~~said target interface~~.